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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,108	07/17/2006	Oddvin Reiso	2006_0560A	1717
513 7590 12/10/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER YANG, JIE	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 12/10/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,108	<b>Applicant(s)</b> REISO ET AL.	
	<b>Examiner</b> JIE YANG	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/18/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-4 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation: "Aluminum alloy containing Mg and Si", and the claim also recites: characterized in that it contains in wt%: Mg, Si, Mn..., which is the narrower statement of the range/limitation.

Claim1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the instant case, "in particular" (claim 1) and "preferably" (claim 2) are not positive citation. Proper corrections are needed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata (JP 60204857, thereafter JP'857).

Regarding the limitation of "useful for extrusion purpose" in claim 1, which is recognized as an intended use of the aluminum base alloy, the limitation does not add patentable weight for the instant process claims. See MPEP 2111.02 II.

Regarding claims 1-3, JP'857 teaches an Al alloy with Mg and Si for extrusion application (Abstract of JP'857). The comparisons of compositions between the instant invention and JP'857 are listed in following table. All of the composition ranges disclosed by JP'857 (Abstract, claims 1-2, and discussions in page 315 Col.2, 5<sup>th</sup> paragraph of JP'875) overlap

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the composition ranges of the instant invention, which is a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to select the claimed compositions Mg, Si, Mn, S, Cr, Zn, Cu, Fe, and Al as recited in the instant claims 1-3 from the composition disclosed by JP'857 because JP'857 discloses the same utility throughout the disclosed ranges. SEE MPEP 2144.05 I. JP'857 teaches adding Ti (0-1wt%) and/or B (0-1wt%) as grain refining agent and including unintentional impurities (Abstract of JP'857), which reads on the limitation of in adding grain refining elements and incidental impurities as recited in the instant claim 1. The composition range of Ti and/or B of JP'857's alloy overlaps the range of up to 0.1wt% grain refining elements as recited in the instant claim 1.

Element	From instant Claim 1-3 (in wt%)	JP'857 (in wt%)	Overlapping range (in wt%)
Mg	0.3-0.5	0-10	0.3-0.5
Si	0.35-0.6	0-11.6	0.35-0.6
Mn	0.02-0.08 (claim 1); 0.03-0.06 (claim 2)	0-10	0.02-0.08 (claim 1); 0.03-0.06 (claim 2)
Cr	0.05	0-1	0.05
Zn	0.15	0-15	0.15
Cu	0.1	0-10	0.1
Fe	0.08-0.28 (claim 1); 0.18-0.25 (claim 3)	0-10	0.08-0.28 (claim 1); 0.18-0.25 (claim 3)
Al	Balance	Balance	Balance

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Regarding claim 4, the claim is written in the product-by-process format. There is no evidence that the claimed process limitation would render the claimed product unobvious over the aluminum alloy of JP'857. See MPEP 2113.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parson et al (US 6,440,359 B1, thereafter, US'359) in view of Ohyama et al (US 6,355,090 B1, thereafter US'090).

Regarding claims 1-3, US'359 teaches an aluminum alloy of composition and incidental impurities up to 0.05 each 0.15 total, which can be extruded at high speed to provide extruded section which meet T5 and T6 strength requirements (Abstract of US'359). The comparisons of compositions between the instant invention and JP'359 are listed in following table. The major composition ranges disclosed by JP'359 (Table 1, claims, and examples of JP'359) overlap the composition ranges of the instant invention. US'359 teaches optional adding Ti (0.007-0.01wt%) and B (0.001wt%) as grain refiners (Examples tables 1-3 and claim 1 of US'359).

Element	From instant Claim 1-3 (in wt%)	US'359 (in wt%)	Overlapping range (in wt%)
Mg	0.3-0.5	0.2-0.34	0.3-0.5
Si	0.35-0.6	0.35-0.60	0.35-0.6
Mn	0.02-0.08 (claim 1); 0.03-0.06 (claim 2)	0-0.15	0.02-0.08 (claim 1); 0.03-0.06 (claim 2)
Cr	0.05	--	--

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Zn	0.15	0.006-.007	--
Cu	0.1	0-0.25	0.1
Fe	0.08-0.28 (claim 1); 0.18-0.25 (claim 3)	0-0.35	0.08-0.28 (claim 1); 0.18-0.25 (claim 3)
Al	Balance	Balance	Balance

Still regarding claim 1, US'359 does not specify adding 0.05wt%Cr and 0.15wt%Zn in the alloy. US'090 teaches an aluminum alloy for automotive parts by extruded operation (Abstract, Col.11, lines 45-63, and table 3-4 of US'359). The major composition ranges disclosed by JP'090 (Col.2, line 39 to col.3, line 56, and claims 5-8 of JP'090) overlap the composition ranges of the instant invention. US'090 teaches adding 0.1 to 1.2wt% Zn and 0.01 to 0.2 wt% Cr in the aluminum alloy, which cover the 0.15wt% Zn and 0.05wt% Cr as recited in the instant claim 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to add proper amount of Cr and Zn as demonstrated by US'090 in the alloy of US'359 because US'090 teaches the proper amount of Zn can enhance the strength of an aluminum wrought alloy and the proper amount of Cr can contribute to improve bending property and toughness of the resultant alloy (Col.6, lines 44-63 of US'090).

Regarding claim 4, the claim is written in the product-by-process format. There is no evidence that the claimed process

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limitation would render the claimed product unobvious over the aluminum alloy of US'359 in view of US'090. See MPEP 2113. The Examiner further notices that US'359 specifies to perform the extrusion operation at temperature of 450°C (Col.7, lines 16-35 and Fig.14-15 of US'359), which is within the extrusion temperature range (430-510°C) as recited in the instant claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884.

The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/  
Supervisory Patent Examiner, Art Unit 1793